# Oyster River district's school buses run on biodiesel

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DURHAM — The New Hampshire Department of Environmental Services, in conjunction with the Granite State Clean Cities Coalition, recently announced that the Oyster River Cooperative School District in Durham has successfully completed a biodiesel demonstration project, using a blend of 20 percent biodiesel (B20) in its fleet of 31 school buses for this school year.

The GSCCC provided ORCSD with a $10,000 grant in 2007 to demonstrate the use of biodiesel in school buses in the state. Through the project, ORCSD was able to reduce greenhouse gas emissions from the school bus fleet by more than 14 percent for the school year, while maintaining equivalent fuel economy to regular diesel fuel.

Use of biodiesel reduces emissions of diesel particulate, toxic air contaminants, carbon monoxide, and volatile organic compounds from diesel engines. Because biodiesel is domestically produced from renewable sources, primarily soybeans, its use helps to reduce the nation's dependence on foreign oil.

"This project serves to unequivocally demonstrate to other school districts and school transportation providers in the state the viability of using biodiesel blends in school buses," said Tom Burack, DES commissioner. "Winter use of biodiesel has been successfully demonstrated in numerous diesel engines in New Hampshire for several years, but this is the first use of biodiesel in school buses.

"As we expected, Oyster River experienced no problems with use of the fuel," Burack said. "The buses achieved the same fuel economy as with diesel fuel and, because biodiesel has excellent solvent properties, the engines ran cleaner."

The ORCSD school district used B20 for the last two months of the 2006-07 school year and again for the 2007-08 school year. Because of its solvent properties, biodiesel tends to clean deposits out of fuel tanks and fuel lines, therefore in the beginning of the project ORCSD scheduled fuel filter replacements for each of the buses.

This was the only modification of the fueling system or engines that was needed to run the biodiesel blend. Use of biodiesel also cleans carbon deposits from diesel engines, resulting in quieter engine operation and potentially longer life of the engine.

"Biodiesel is a sustainable fuel that can be produced from non-food crops and waste sources such as used restaurant grease," said GSCCC coordinator Barbara Bernstein. "Even when biodiesel is made from soybean oil, more than 80 percent of each soybean is still used for animal feed or food. In the future we anticipate seeing biodiesel produced from algae and other sources that do not require use of agricultural land."

Led by DES, the GSCCC is a collaborative of over 80 public and private interests from all regions in New Hampshire. Coalition members support the goals of reducing dependence on foreign oil, and improving air quality, through the use of domestically produced, alternative fuels and other fuel reduction strategies.

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